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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,514	10/05/2003	Gin-Der Wu	ALIP0023USA	2513

27765 7590 11/02/2007

NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION
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EXAMINER
SERROU, ABDELALI

ART UNIT	PAPER NUMBER
2626	

NOTIFICATION DATE	DELIVERY MODE
11/02/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

winstonhsu.uspto@gmail.com
Patent.admin.uspto.Rcv@naipo.com
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Office Action Summary	Application No.	Applicant(s)	
	10/605,514	WU, GIN-DER	
	Examiner	Art Unit	
	Abdelali Serrou	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 August 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4,5,7,10,13,14 and 18-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,5,7,10,13,14 and 18-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. In response to the office action mailed on 06/12/07, applicant filed an amendment on 08/20/07, amending claims 1, 4, 5, 10, 13, 14, and 18, canceling claims 2-3, 6, 8-9, 11-12, and 15-17, and adding new claims 21-30. The pending claims are 1, 4-5, 7, 10, 13-14, and 18-30.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 4-5, 7, 10, 13-14, and 18-30 have been considered but are moot in view of the new ground(s) of rejection.

As per claims 1 and 10, applicant admits that Tackin teaches calculating a zero crossing count for a voice sample and comparing the calculated count to a threshold value. However, applicant argues that Tackin does not teach counting the number of times that the amplitude of a voice signal crosses a standard level in a predetermined period (Remarks, page 10). The examiner points out that the standard level claimed by applicant is the zero level (as in canceled claim 6, and as shown in Fig. 2). Therefore, calculating a zero crossing or a standard value crossing count for a voice sample is the same thing. Furthermore, if a system teaches counting a zero crossing count for a voice sample, it would have been obvious to count the crossing of any other standard value.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4-5, 7, 10, 13-14, 18-19, and 21-30 are rejected under 35 U.S.C. 102(e) as being unpatentable by Tackin (U.S 7, 180, 892 filed on Sep.1, 2000 and issued on Feb. 20, 2007).

As per claims 1, 8, and 10, Tackin teaches:

setting a standard level and a predetermined period of time (col. 2, lines 3-5);

counting the number of times that the amplitude of a first voice signal crosses the standard level in the predetermined period (col. 38, lines 52-53);

outputting a corresponding counting result (inherently disclosed in the process to compare the zero crossing counts to a pre-determined threshold, col. 38, lines 61-62);

determining whether a first signal or a second signal is mixed with the low frequency voice signal (Abstract, wherein the system discriminates between voice signals and data signals).

Tackin does not explicitly teach counting the number of times that the amplitude of a second voice signal crosses the standard level in the predetermined period; outputting the corresponding counting result; and comparing the first counting result with the second counting result.

However, it's well known in the art that if a system counts the number of zero crossings in a predetermined period; and outputs the corresponding counting result for a first signal, the same system will be able to do the same thing for a second signal. Furthermore, since the system discriminates between two signals (Abstract), and compares a first counting result with a

threshold (col. 38, lines 61-64), the same system will be obviously able to compare a first counting result with a second counting result.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made that for a system that discriminate between two signals based on the zero crossing counting technique, as described in the teachings above, one should compare the zero crossing counting results of two signals, in order to discriminate between the two signals.

As per claims 4 and 13, Tackin teaches wherein the bandwidth of the low-frequency voice signal is equal to the bandwidth of a first or second voice signal (necessarily disclosed).

As per claims 5 and 14, Tackin teaches wherein the counting step comprises comparing whether one of a current datum and a next datum is larger or smaller than the standard level in the predetermined period, wherein a zero-crossing between the current datum and the next datum in the a voice signal is determined when one of the current datum and the next datum is larger than the standard level and other is smaller than the standard level (inherently disclosed in the case of two consecutive datums separated by a crossing zero point).

As per claim 7, Tackin teaches reducing the amplitude of the low-frequency voice signal in the a voice signal when the a voice signal is determined to be mixed with the low-frequency voice signal (inherent in low-pass filtering, col. 74, line 51-52).

As per claims 18 and 19, Tackin teaches all the limitations of claim 16, upon which claim 18 depends. Tackin does not explicitly teach transforming a voice signal into sound.

However, it is well known in the art to transform a voice signal into sound.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to transform a voice signal into sound, for a better communication.

As per claims 21-30, Tackin teach all the limitations of claims 1 and 10, upon which claims 21-30 depend.

Tackin does not explicitly teach comparing the zero crossing counting results of a first voice signal and a second voice signal to determine which voice signal is mixed with low frequency voice signal.

However, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made that for a system that discriminate between two signals based on the zero crossing counting technique, as described in the teachings above, one should compare the zero crossing counting results of two signals, in order to discriminate between the two signals.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tackin in view of Jiang et al. (hereinafter Jiang) (U.S 6,901,362).

Tackin does not explicitly teach reading a voice signal from a video disc.

Jiang in the same field of endeavor teaches reading a voice signal from a video disc (col. 4, lines 30-31).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to have added the video disc reader of Jiang to the audio signal classifier of Tackin, for registering images data signals.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdelali Serrou whose telephone number is 571-272-7638. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A. Serrou
10/26/07

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DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
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